TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION Effective October 1, 2003
DR-91 Revised February 1, 2004

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation 3 years after the effective date.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

The **Wenco Challenge Energy Saver Steel Door, Non-impact Resistant** manufactured by

Hoelscher Weatherstrip Manufacturing Co., Inc.
1046 West 23rd
Houston, Texas 77008
(713) 869-6466

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The Challenge Energy Saver insulated steel doors are non-impact resistant inswing doors. The doors may be installed in the following configurations: X, OX.

System 1 (Single Unit):

Overall Dimensions: 37 3/4 " wide by 98 1/2 " high
Leaf Size: 36” wide by 95” high
Frame Construction: The door frame is constructed of finger-jointed pine head and jambs. The top corners of the door frame are secured using four #8 x 2 1/2 ” long screws. All corners are coped and butted to form the joints.

Panel Construction: The door leaf is 1 13/16 ” thick. All leafs consist of a 2 1/2 ” x 1” wooden frame surrounding a one piece polystyrene core. The core is clad with 24 gauge galvanized steel, epoxy primed on the interior and painted on the exterior, and laminated to the polystyrene using adhesive. The steel cladding has rolled edges which snap to a 3/16 ” x 3/16 ” rabbet running the entire perimeter of the stiles, and top rail interior and exterior.

Reinforcements: None.

Glazing Material: The door assembly utilizes 1/2 ” thick sealed insulating glass consisting of two 1/8 ” thick, clear sheets of tempered glass, separated by a 1/4 ” aluminum spacer.

Glazing Method: The glazing method consists of a rigid polystyrene, two piece frame with screws from the interior to the exterior on 12” centers around the entire perimeter. The glass and frame are bedded with silicone on the interior and exterior sides.

Maximum Daylight Opening: 24” wide x 82” high

PRODUCT DESCRIPTION (continued):

Hardware: The hardware is as follows: Lockset: Weiser Phoenix, Deadbolt: Weiser Model D9470. The door has four (4) 4" butt hinges, two (2) lock strike plates in the frame jamb and a Hoelscher weatherstrip threshold.
Product Identification: A label will be affixed to the door units. The label shall include the manufacturer's name, performance characteristics and installation instructions.

System 2 (Full Lite Double Door Unit):

Overall Dimensions: 65 7/8 " wide by 81 1/4 " high
Active Panel Size: 32" wide by 79" high
Stationary Panel Size: 33 1/2 " wide by 79" high

Frame Construction: The door frame is constructed of pine head and jambs. All corners are coped and butted to form the joints. The outer jambs are secured to the head using four (4) 2" staples. The intermediate jamb is secured to the head using three (3) #8 x 2" screws. The stationary panel sill is secured to the intermediate jamb and outer jamb using two (2) 2" staples at each end, and two (2) #8 x 2 1/2 " screws through the intermediate jamb. The stationary panel threshold is constructed of wood, extruded aluminum, and extruded vinyl. The stationary panel threshold measures 5 5/8 " x 1 11/32 ". The active panel sill is formed of 4 1/16 " x 1 5/8 " extruded aluminum.

Panel Construction: The door leaf is 1 13/16 " thick. All leafs consist of a 2 1/2 " x 1" wooden frame surrounding a one piece polystyrene core. The core is clad with 24 gauge galvanized steel, epoxy primed on the interior and painted on the exterior, and laminated to the polystyrene using adhesive. The steel cladding has rolled edges which snap to a 3/16 " x 3/16 " rabbet running the entire perimeter of the stiles, and top rail interior and exterior.

Reinforcements: None.

Glazing Material: The door assembly utilizes 1/2 " thick sealed insulating glass consisting of two 1/8 " thick, clear sheets of tempered glass, separated by a 1/4 " aluminum spacer.

Glazing Method: The glazing method consists of a rigid polystyrene, two piece frame with screws from the interior to the exterior on 12" centers around the entire perimeter. The glass and frame are bedded with silicone on the interior and exterior sides.

Maximum Daylight Opening: 21" wide x 63" high

Hardware: The hardware is as follows: Lockset: Weiser Phoenix, Deadbolt: Weiser Model D9470. The door has three (3) 4" butt hinges, two (2) lock strike plates in the frame jamb and a Hoelscher weatherstrip threshold.

Product Identification: A label will be affixed to the door units. The label shall include the manufacturer's name, performance characteristics and installation instructions.

LIMITATIONS

Design Pressures:

System	Width	Height	Design Pressure (psf)
1	37 3/4	98 1/2	+30, - 32
2	65 7/8	81 1/4	+40, - 50

Impact Resistant: These door assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. The installation of this unit will require an impact protective system.
Acceptance of Smaller Systems: Door assemblies with dimensions equal to or smaller than those specified are acceptable within the limitations of this report.

INSTALLATION INSTRUCTIONS

General: The door assemblies shall be installed according to the manufacturer's installation instructions and this product evaluation. The wood framing members shall be minimum Southern Yellow Pine lumber.

Installation:

System 1:

Frame:

Jambs: #10 x 2 ½ " long wood screws spaced 1" from the corners and 20" o.c. thereafter.

Head: #10 x 2 ½ " long wood screws spaced 8" from the corners and one at the midpoint.

Threshold: The threshold is secured to the slab by drilling holes into the slab and inserting plastic anchors. The threshold is set in place and a minimum of #10 x 3" long wood screws spaced 3" from the corners and 10" o.c. thereafter are secured into the anchors.

Hinges: Hinges to door leaf: four (4) #10 x 1" long wood screws for each hinge.
Hinges to door frame: three (3) #10 x 3" long wood screws and one (1) #8 x 2 ½ " long wood screw for each hinge.

Strike plates: (2) #6 x 1" long wood screws for each strike plate.

System 2:

Frame:

Lock Jamb: #8 x 2 ½ " long wood screws spaced 2" from the corners and 12" o.c. thereafter.

Stationary Panel Jamb: #8 x 2 ½ " long wood screws spaced 2" from the corners and 12" o.c. thereafter.

Head: #8 x 2 ½ " long wood screws spaced 2" from the corners and one at the midpoint of each opening.

Sill: The stationary panel sill is secured using one (1) #8 x 2 ½ " screw located 2" from the corners and at the midpoint. The active panel sill is secured using one (1) #10 x 2 ½ " screw located 3 ½ " and 11 ¾ " from each corner.

Hinges: Hinges to door leaf: four (4) #10 x 1" long wood screws for each hinge.
Hinges to door frame: four (4) #10 x 1" long wood screws for each hinge.

Strike plates: (2) #8 x 2 ½ " long wood screws for each strike plate.

Note: The manufacturer's installation instructions shall be available on the job site during installation. Fasteners shall be corrosion resistant as specified in the International Residential Code (IRC) and the International Building Code (IBC).